Title: METHOD AND APPARATUS FOR DISSIPATING HEAT FROM AN ELECTRONIC DEVICE

Assignee: Intel Corporation

REMARKS

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Applicant has carefully reviewed and considered the Office Action mailed on January 21, 2004, and the references cited therewith. Claims 1, 3-10, 12-15, 17, 21 and 23-30 are now pending in this application.

Allowable Subject Matter

Applicant notes with appreciation that claims 1, 3-8 and 12-14 were allowed.

First \$103 Rejection of the Claims

Claims 9, 10, 15, 17 and 24-27 were rejected under 35 USC § 103 in view of Phillips et al. (U.S. 5,587,880). In order to establish a prima facie case of obviousness, the references must teach or suggest all the claim elements. See M.P.E.P. § 2142 and In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Examiner appears to acknowledge that Phillips et al. do not teach or suggest all of the claim limitations. The Examiner states at page 2 of the Office Action that "Phillips discloses the claimed invention except for a control connected to the heater to maintain the coolant at an optimum temperature for evaporation by the evaporator."

Applicant respectfully submits that Phillips et al. do not teach or suggest "a control connected to the heater to maintain the coolant at an optimum temperature for evaporation by the evaporator" as recited in claim 9; "the heater adding thermal energy to the liquid coolant when there is liquid coolant within the evaporator to maintain the liquid coolant at an optimum temperature for evaporation by the evaporator" as recited in claim 15; or "adding thermal energy to a liquid coolant to maintain the liquid coolant at an optimum temperature for evaporation by an evaporator" as recited in claim 24.

The Examiner further states at page 2 of the Office Action that "[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to include control connected to the heater to maintain the coolant at an optimum temperature for evaporation by the evaporator, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art."

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Applicant respectfully traverses this assertion for two reasons. The first reason relates to Phillips et al. specifically teaching away from heating the cooling fluid to maintain the cooling fluid at an optimum temperature for evaporation. Applicant respectfully directs the Examiner's attention to col. 11, lines 48-55 of Phillips et al., which states:

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"[t]he switch 157 is arranged to couple electric current into the coil 155 in cooling system orientations where a gravity-assisted return of the condensate to the evaporator 5 will not occur. In orientations where gravity will operate on the condensate, the heater coil 155 is shut of 12 Accordingly, as shown in FIG. 17A, the heater coil 155 does not operate." [Emphasis added].

The second reason is that the rejection fails to establish a legally sufficient motivation that it would have been obvious to connect a control to a heater to maintain the coolant at an optimum temperature for evaporation by the evaporator. Applicant respectfully submits that the assertion of "[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to include control connected to the heater to maintain the coolant at an optimum temperature for evaporation by the evaporator, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art" is a mere conclusory statement that fails to provide any objective evidence of obviousness.

Other than this bare assertion of obviousness, no reference or reason is given to support the statement. Since each element of the claims is admittedly not found in the reference, the Applicant assumes that the Examiner is taking Official Notice of the missing elements. The Applicant respectfully objects to taking Official Notice with a single reference obviousness rejection and, pursuant to M.P.E.P. § 2144.03, respectfully traverses the assertion of Official Notice and requests the Examiner cite references in support of this position. If the Examiner is relying on personal knowledge to support the finding of what is known in the art, the Examiner is respectfully requested to provide an affidavit setting forth specific factual statements and explanation to support the finding, as required under 37 C.F.R. § 1.104(d)(2).

In addition, Applicant respectfully submits that the Examiner's statement is analogous to those made by the Examiner and Board in the recently decided case *In re Lee*, 277 F.3d 1338 (Fed. Cir. 2002).

"With respect to Lee's application, neither the examiner nor the Board adequately supported the selection and combination of the Nortrup and Thunderchopper references to render obvious that which Lee described. The examiner's conclusory **RESPONSE UNDER 37 CFR § 1.111**

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statements that 'the demonstration mode is just a programmable feature which can be used in many different devices for providing automatic introduction by adding the proper programming software" and that "another motivation would be that the automatic demonstration mode is user friendly and it functions as tutorial" do not adequately address the issue of motivation to combine. This factual question of motivation is material to patentablility, and could not be resolved on subjective belief and unknown authority. It is improper, in determining whether a person of ordinary skill in the art would have been lead to this combination of references, simply to use '[use] that which the inventor taught against its teacher.' W.L. Gore V. Garlock, Inc., 721 F. 2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983)." Lee, at 1343, 1344.

Claims 10, 17 and 25-27 depend from respective claims 9, 15 and 24 such that these claims incorporate all the limitations of claims 9, 15 and 24. Therefore, Phillips et al. do not teach or suggest the subject matter of claims 10, 17 and 25-27 for the reasons provided above with regard to claims 9, 15 and 24.

Reconsideration and allowance of claims 9, 10, 15, 17 and 24-27 are respectfully requested.

Second §103 Rejection of the Claims

Claims 21, 23 and 28-30 were rejected under 35 USC § 103(a) as being unpatentable over Phillips et al. Applicant respectfully traverses the rejection because Applicant can not find in Phillips et al. any teaching or suggestion of: "a control connected to the heater to maintain the liquid coolant at an optimum temperature for evaporation by the evaporator when there is liquid in the evaporator" as recited in claim 21; or "a control adapted to be connected to the heater to maintain the liquid coolant at an optimum temperature for evaporation by the evaporator when there is liquid in the evaporator" as recited in claim 28.

Since each element of the claims is not found in the reference, the Applicant assumes that the Examiner is taking Official Notice of the missing elements. The Applicant respectfully objects to taking Official Notice with a single reference obviousness rejection and, pursuant to M.P.E.P. § 2144.03, respectfully traverses the assertion of Official Notice and requests the Examiner cite references in support of this position. If the Examiner is relying on personal knowledge to support the finding of what is known in the art, the Examiner is respectfully

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requested to provide an affidavit setting forth specific factual statements and explanation to support the finding, as required under 37 C.F.R. § 1.104(d)(2).

Claims 23 and 29-30 depend from respective claims 21 and 28 such that these claims incorporate all the limitations of claims 21 and 28. Therefore, Applicant traverses the rejection of claims 23 and 29-30 for the reasons provided above with regard to claim 21 and 28.

Reconsideration and allowance of claims 21, 23 and 28-30 are respectfully requested.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney, Andrew Peret (262-646-7009) or the below signed attorney (612-349-9592) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743

Respectfully submitted,

IOAN SAUCIUC ET AL.

By their Representatives,

Schwegman Lundberg Woessner & Kluth, P.A. Attorneys for Intel Corporation P.O. Box 2938 Minneapolis, Minnesota 55402 612-349-9592

Date March 22 2004

Ann M. McCrackin

Reg. No. 42,858

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this <u>12</u> day of <u>March</u>, 2004.

M. Richards

Signature

Name